

FIG. 1

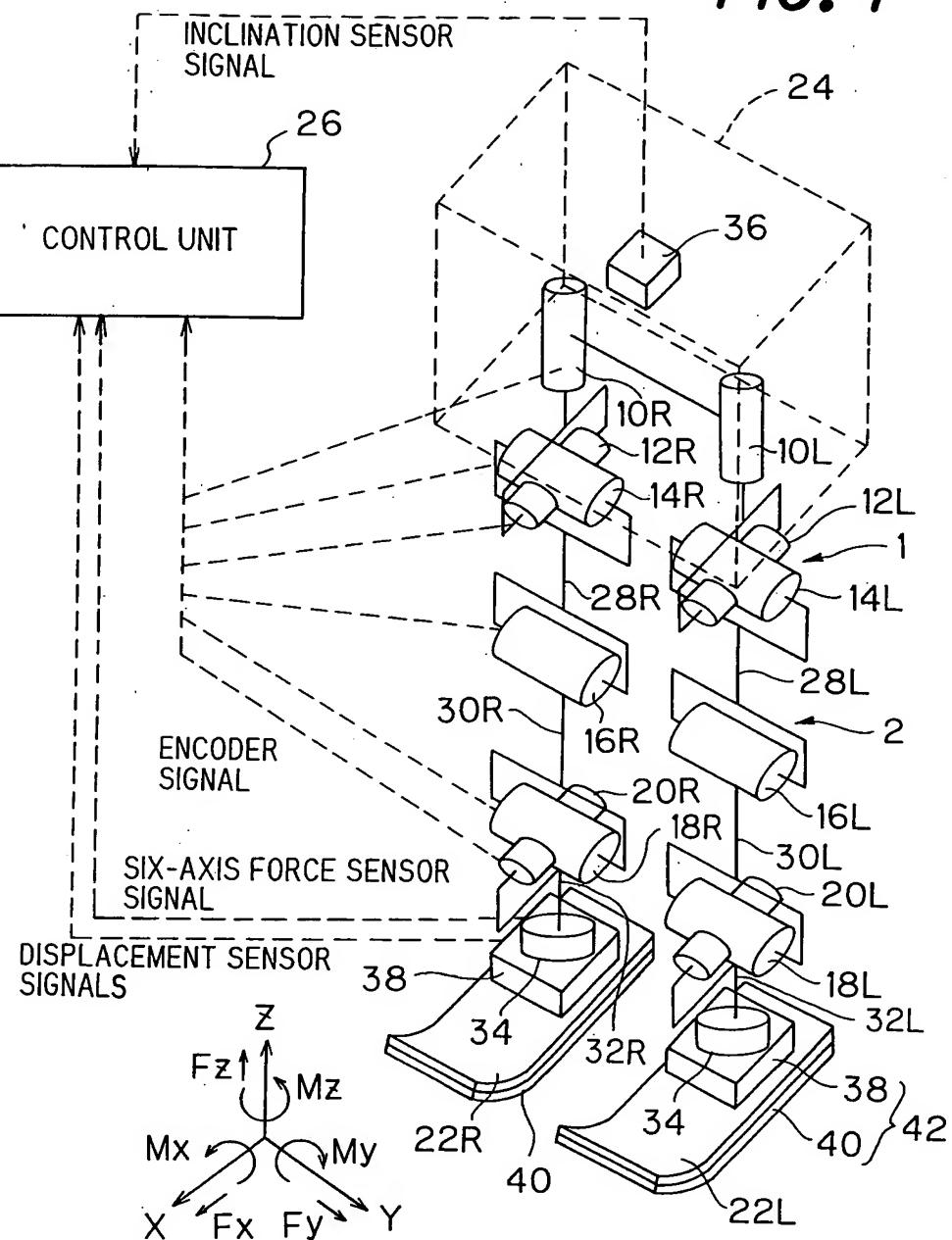


FIG. 2

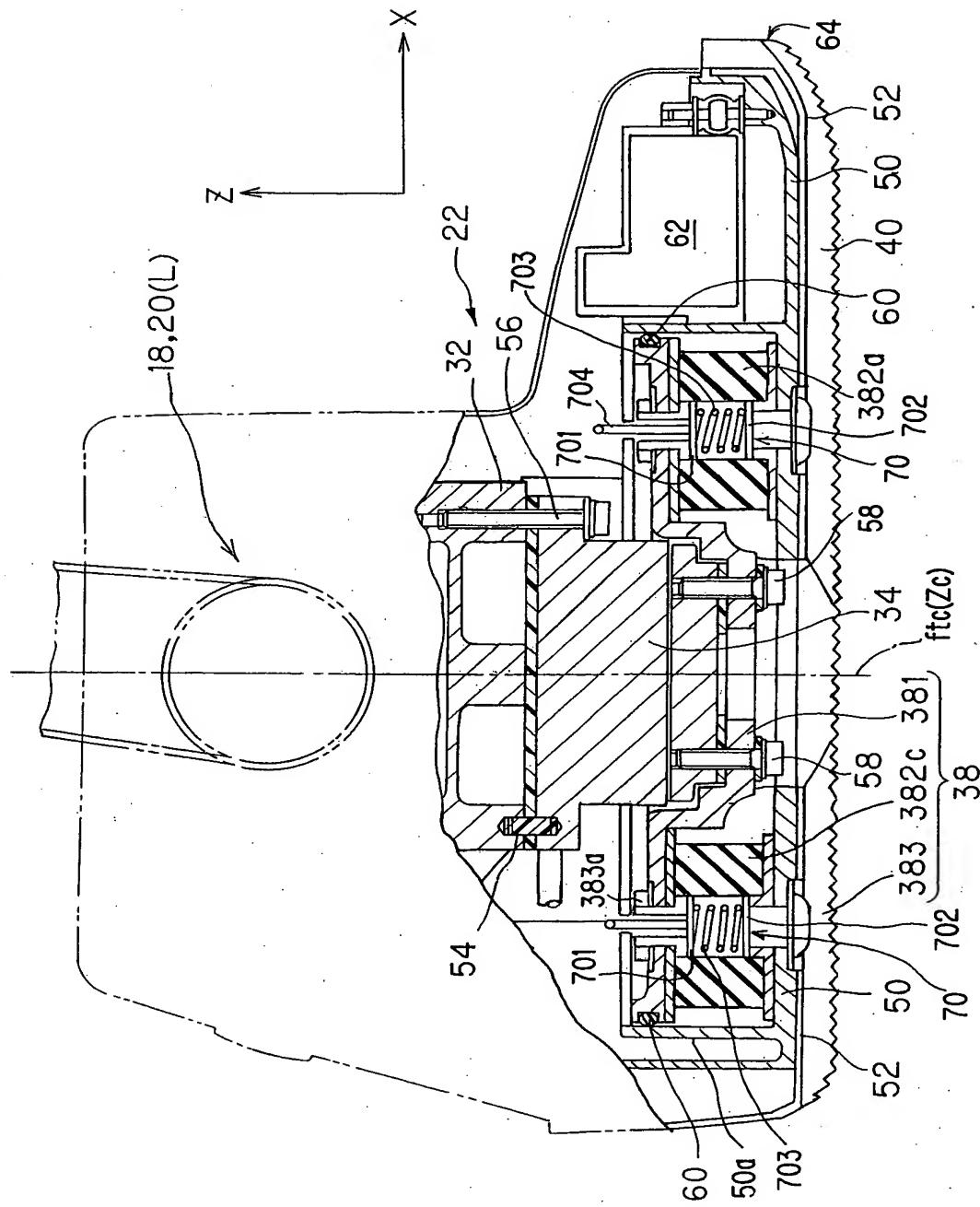
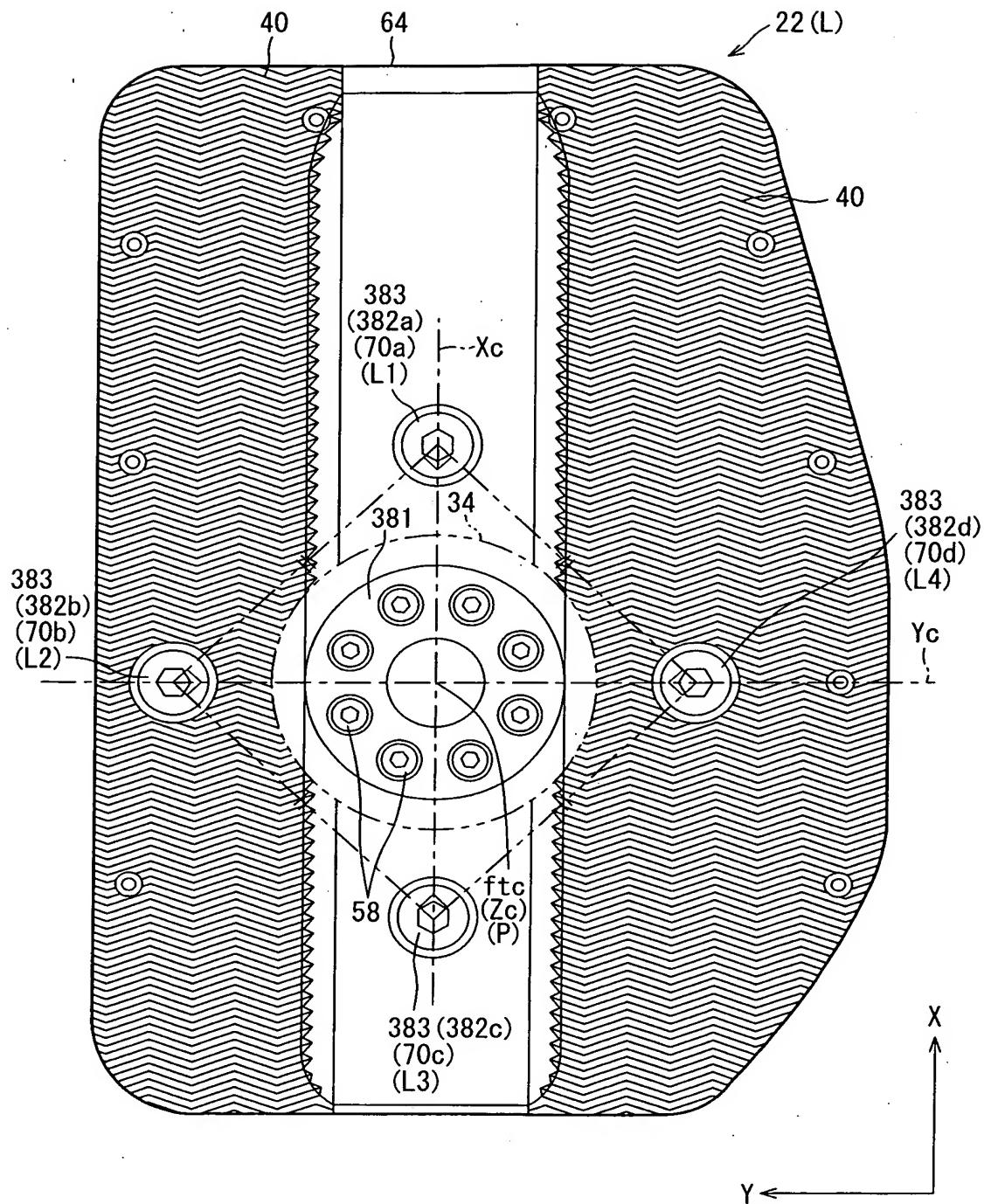
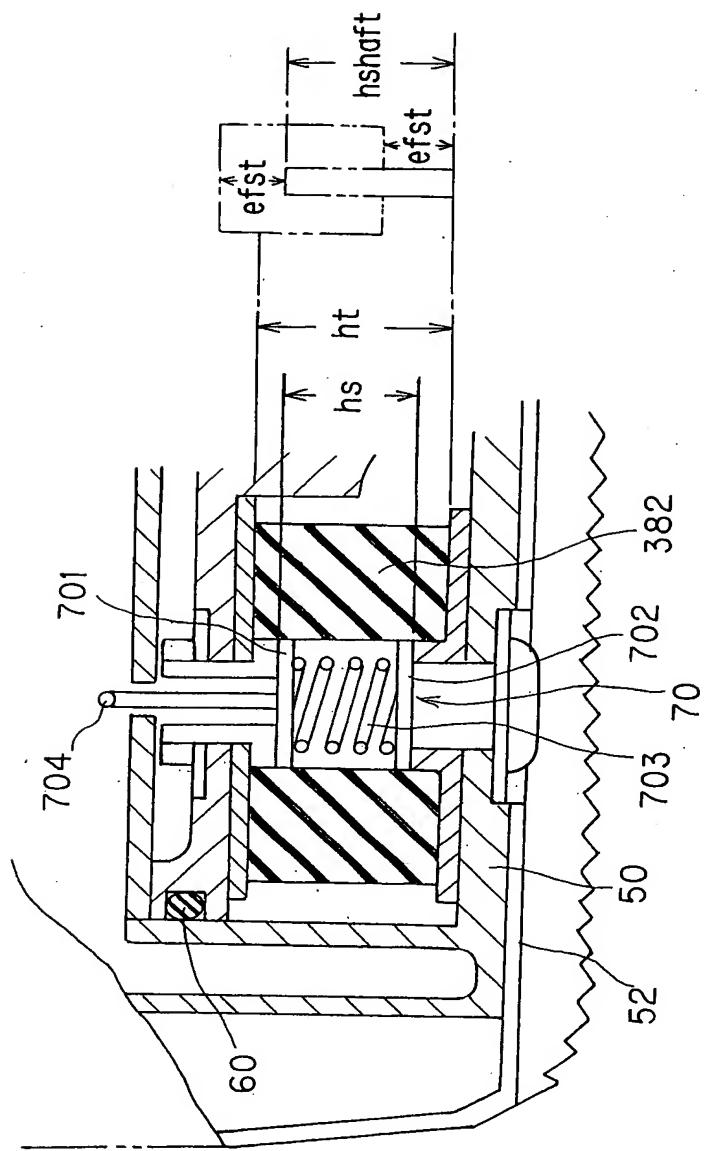


FIG. 3



4/18

FIG. 4



5/18

FIG. 5

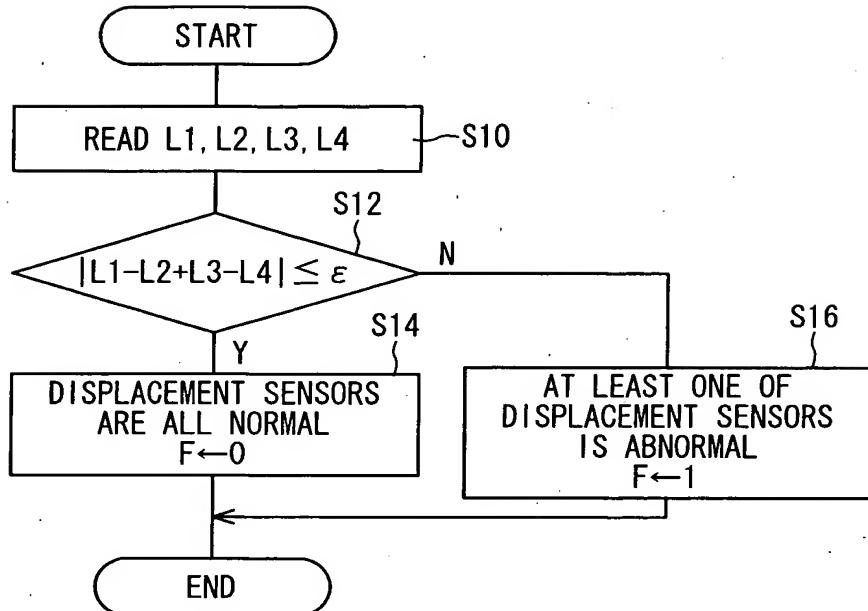
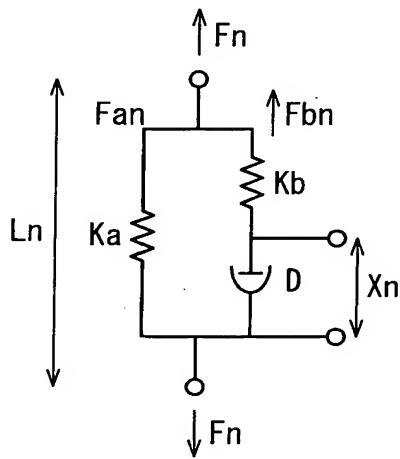


FIG. 6

IN THE ABOVE $F_n = F_{an} + F_{bn}$

$$F_{an} = -K_a L_n + C_1$$

$$F_{bn} = -K_b (L_n - X_n) + C_2$$

$$F_{bn} = -D \frac{d}{dt} X_n$$

6/18

FIG. 7

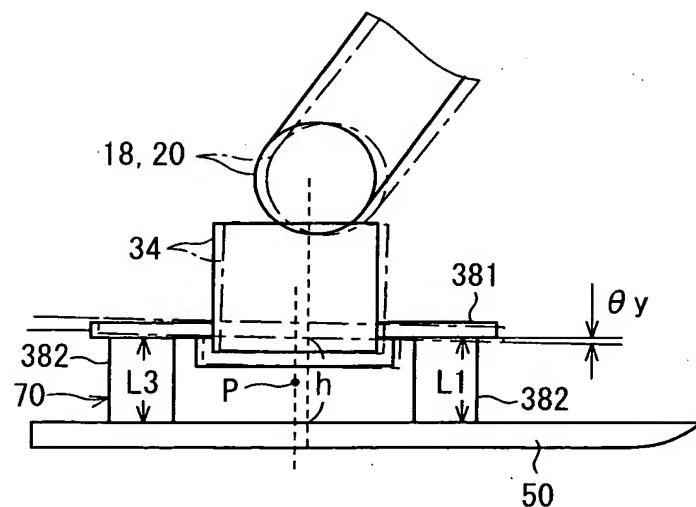
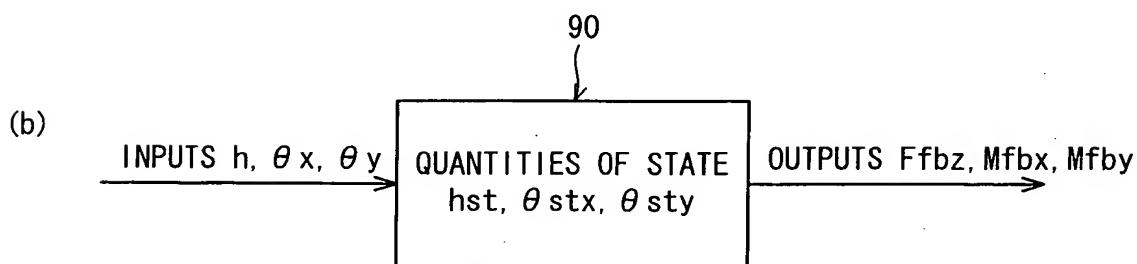
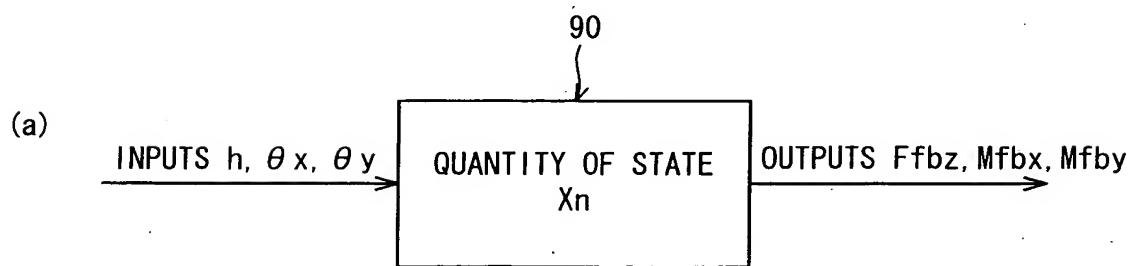


FIG. 8



7/18

FIG. 9

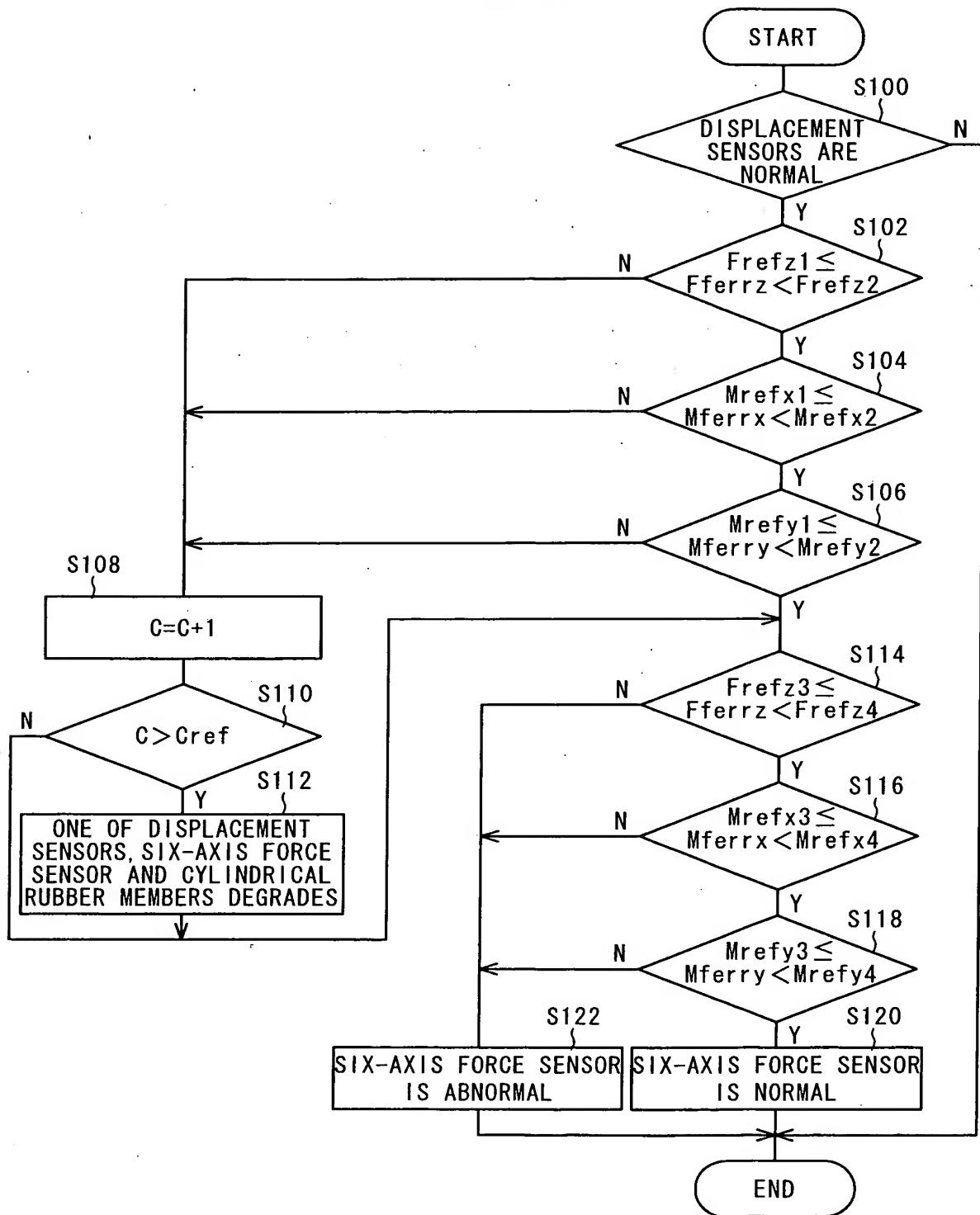


FIG. 10

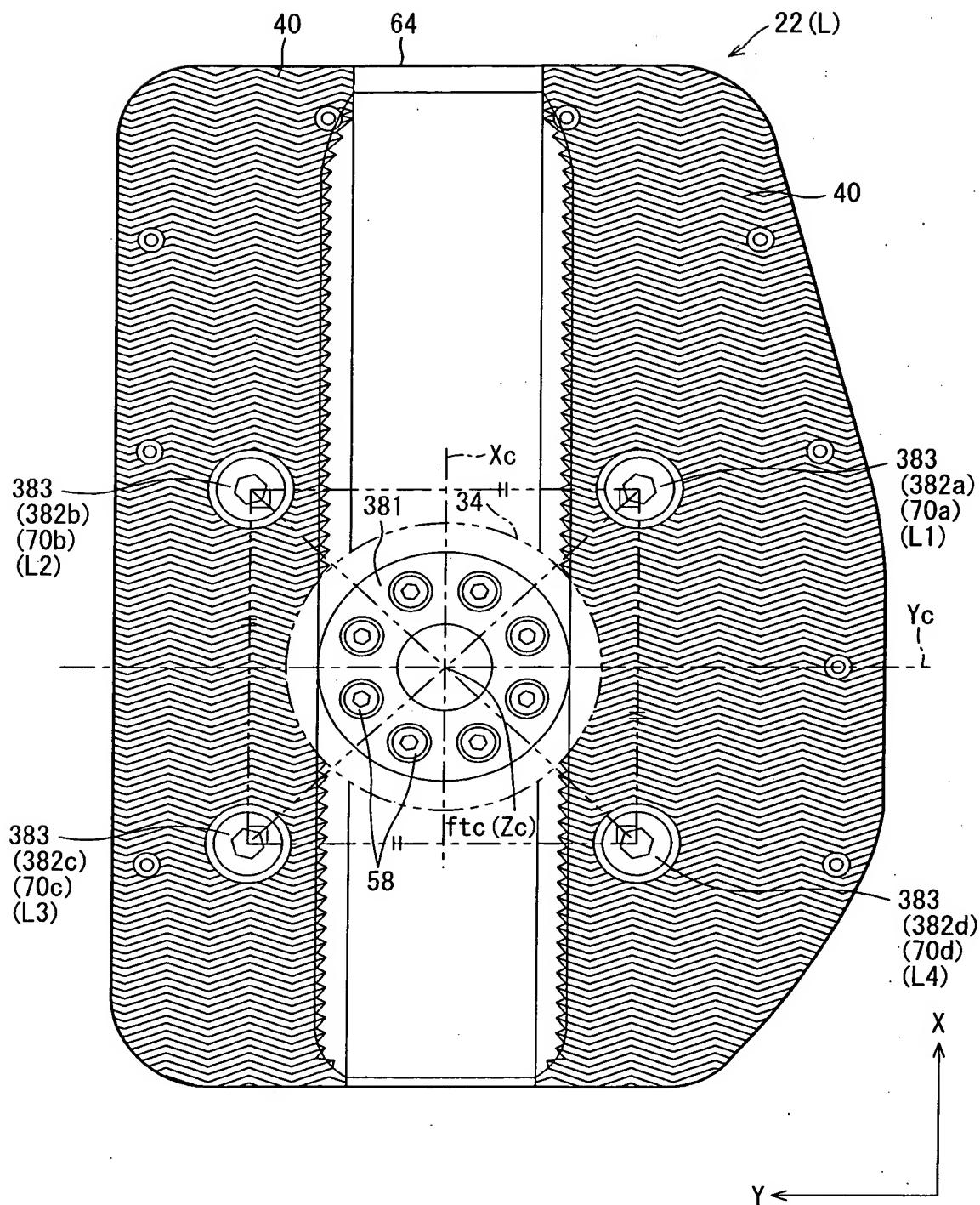
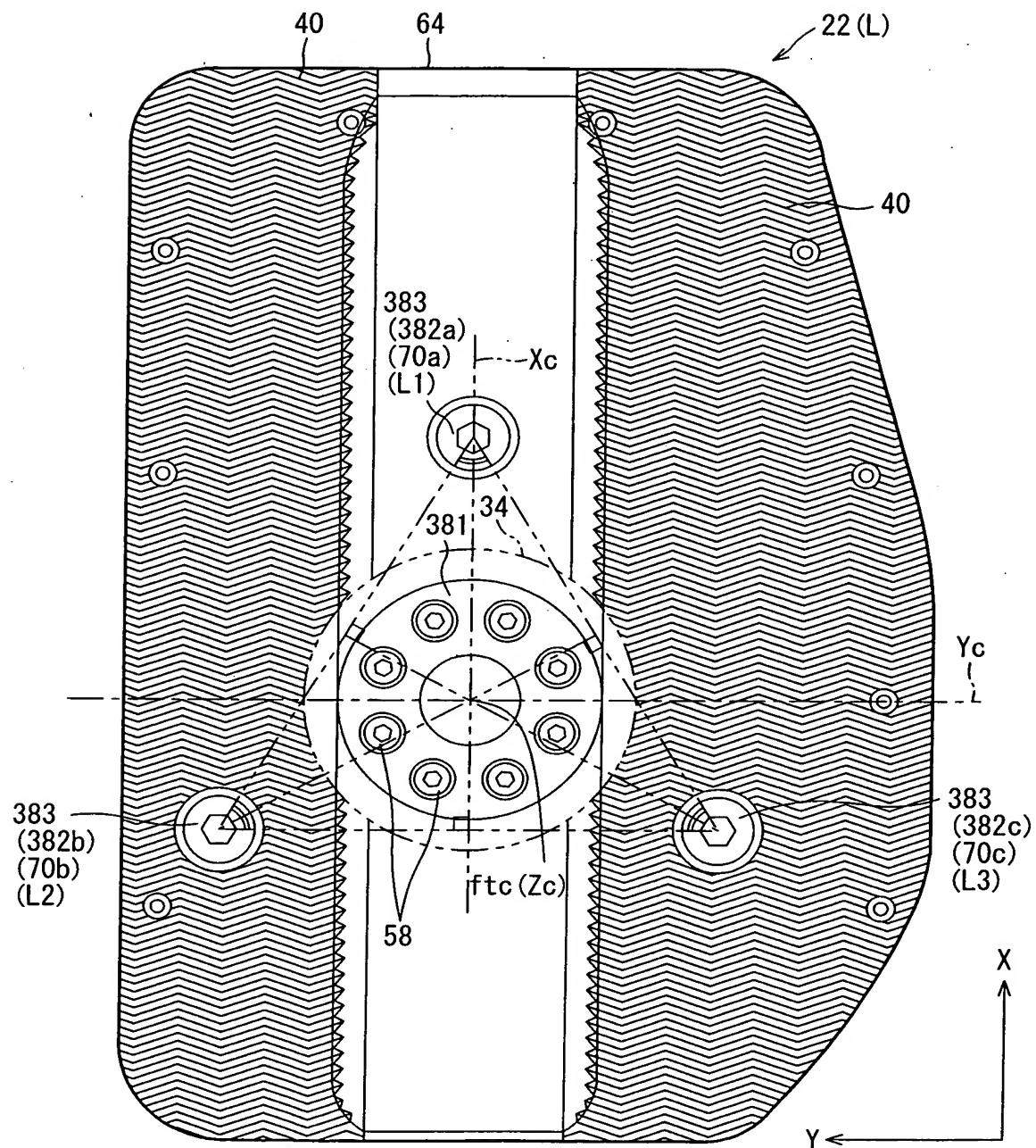


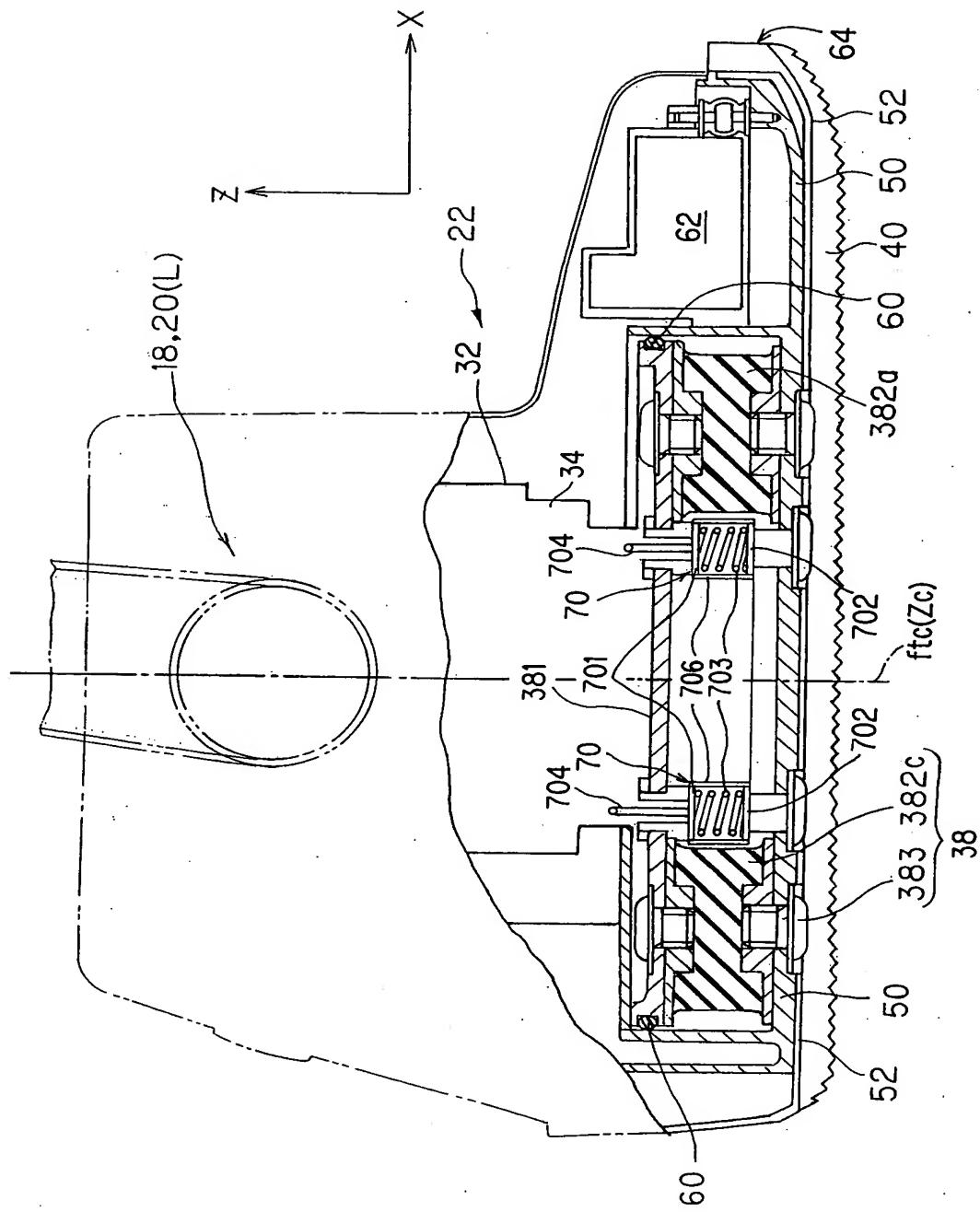
FIG. 11



10/500117

10/18

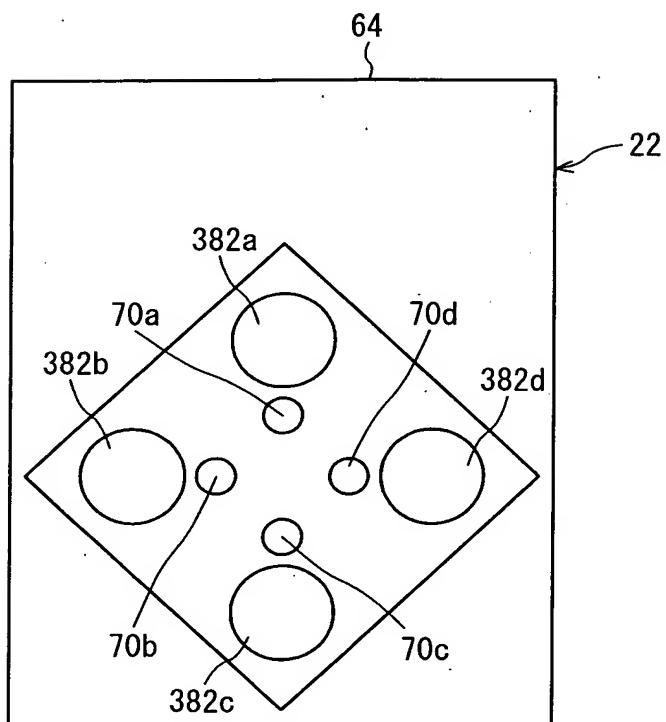
FIG. 12



10/500117

11/18

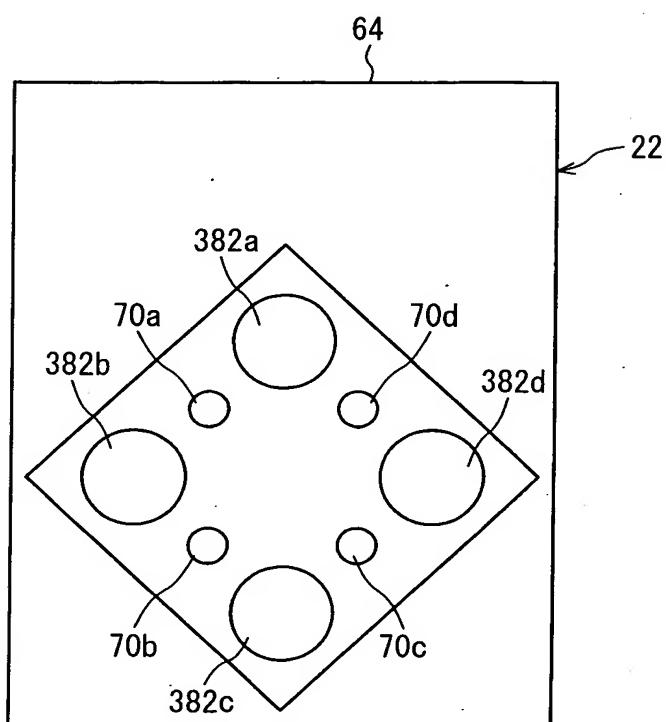
FIG. 13



10/500117

12/18

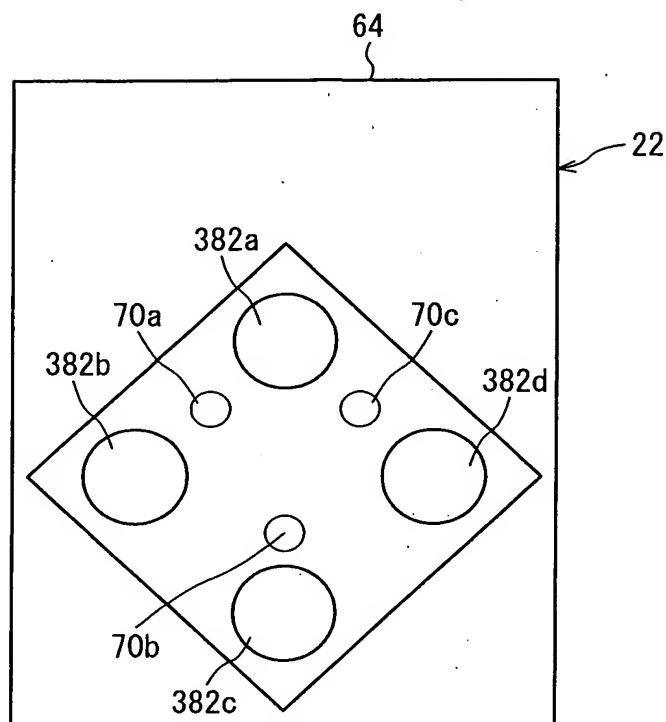
FIG. 14



10/500117

13/18

FIG. 15



101500117

14/18

FIG. 16

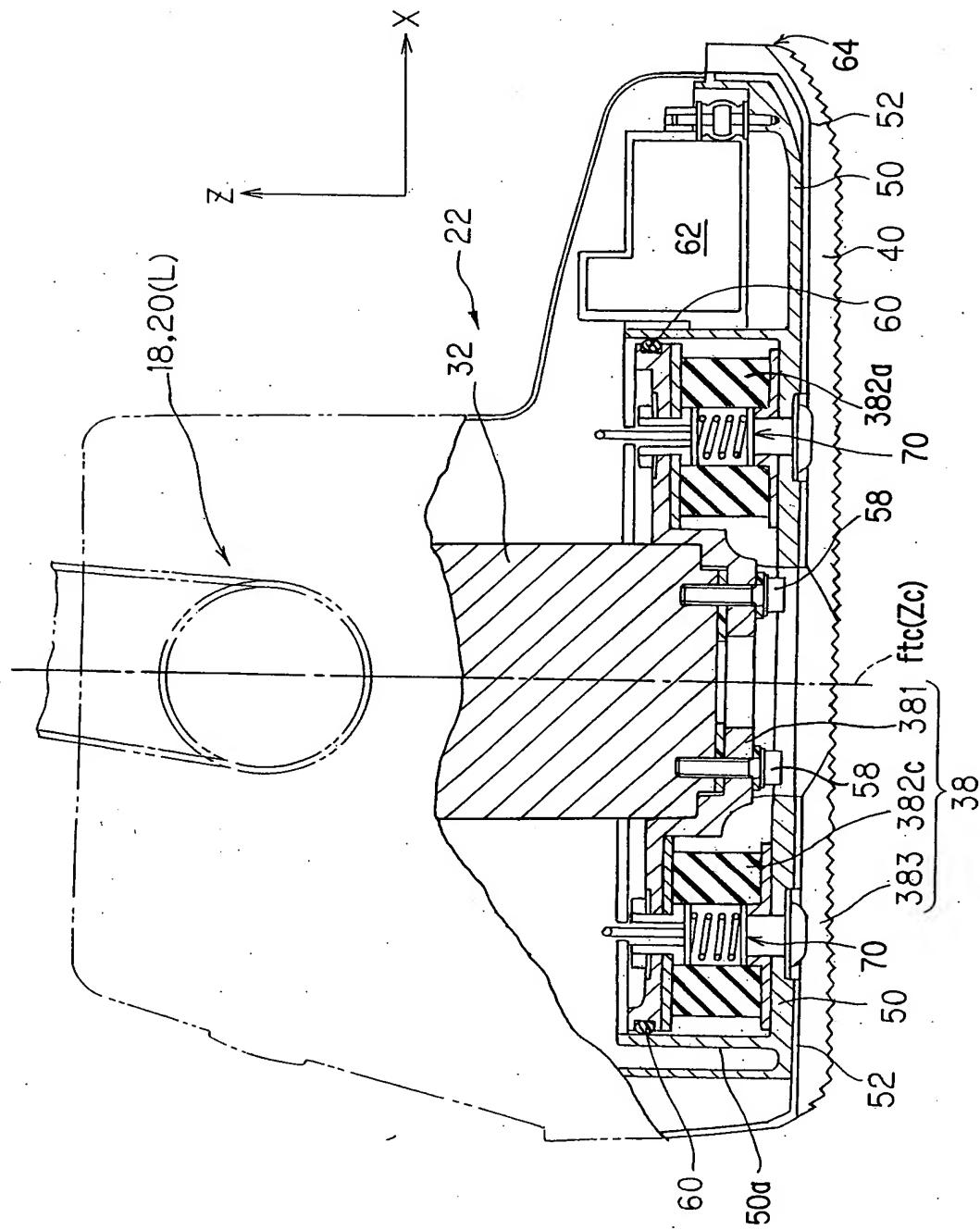
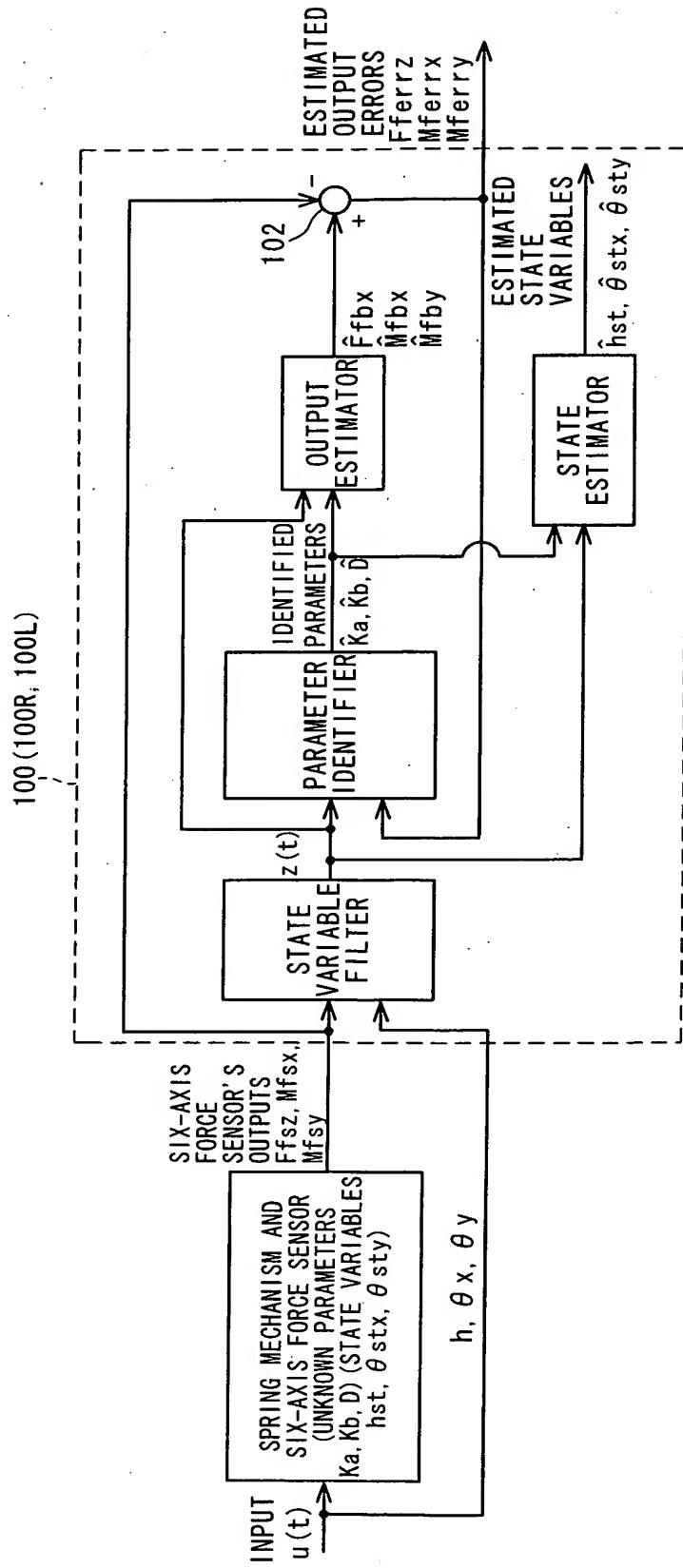


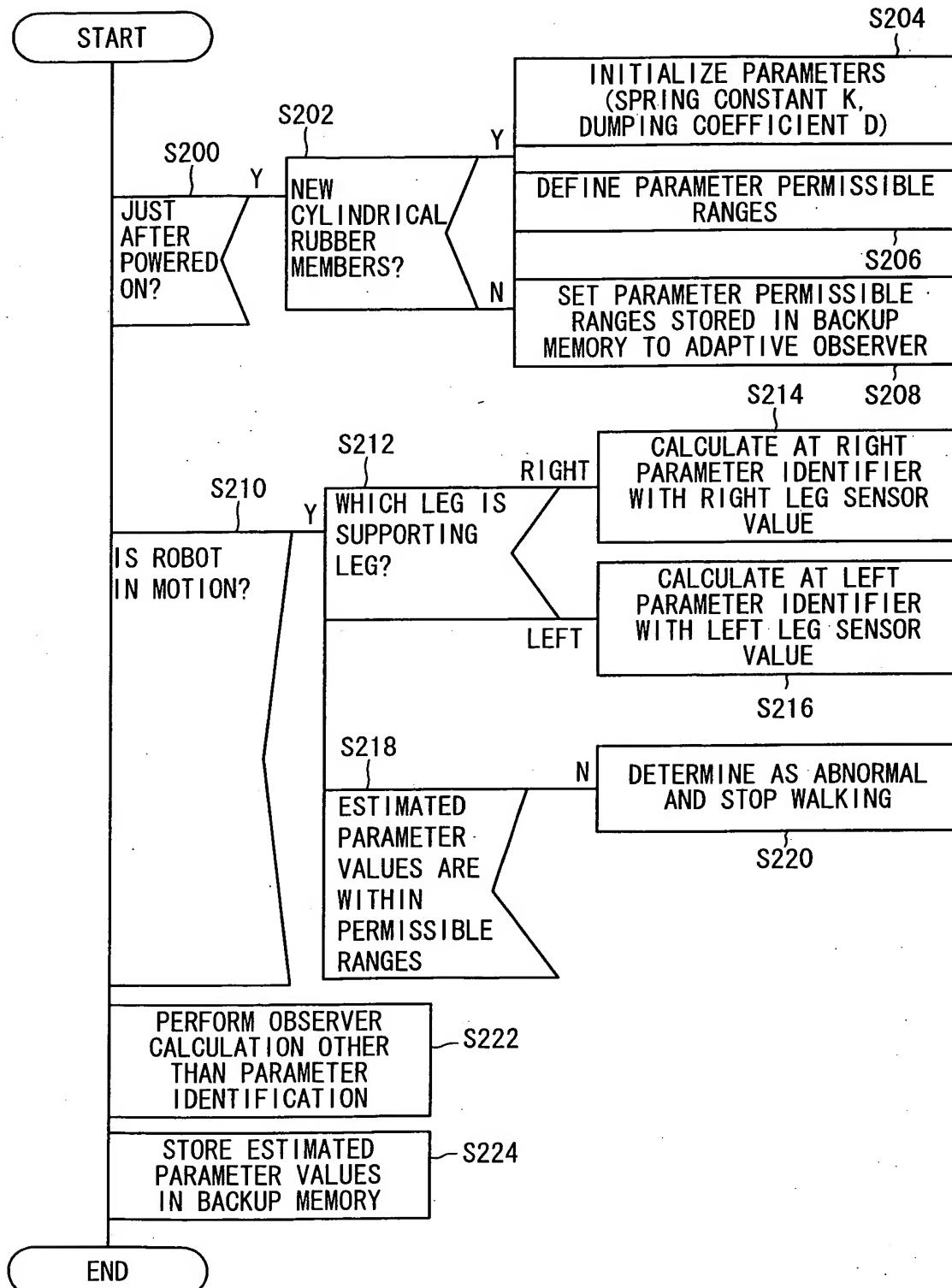
FIG. 17



10/500117

16/18

FIG. 18



10/500117

17/18

FIG. 19

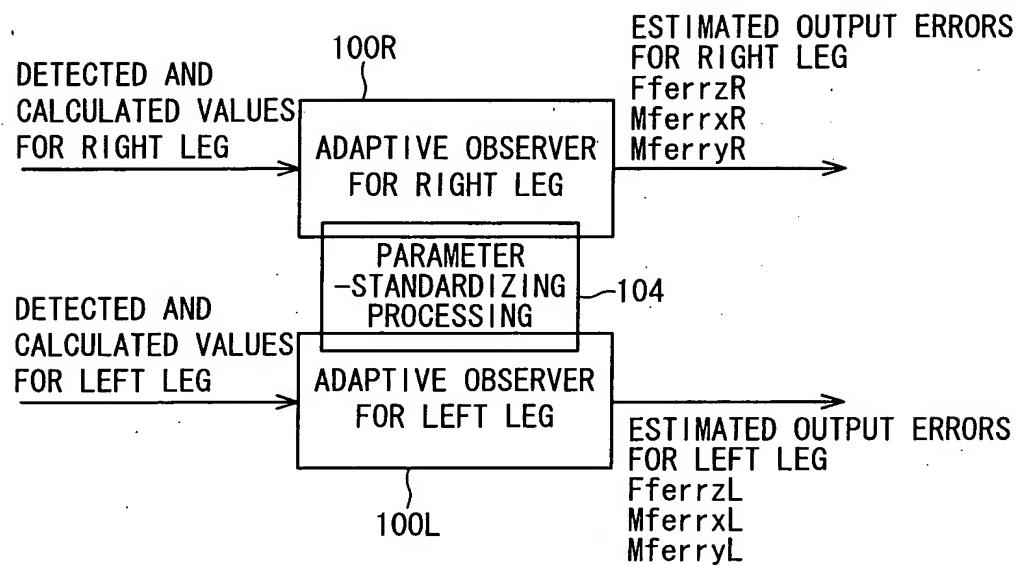
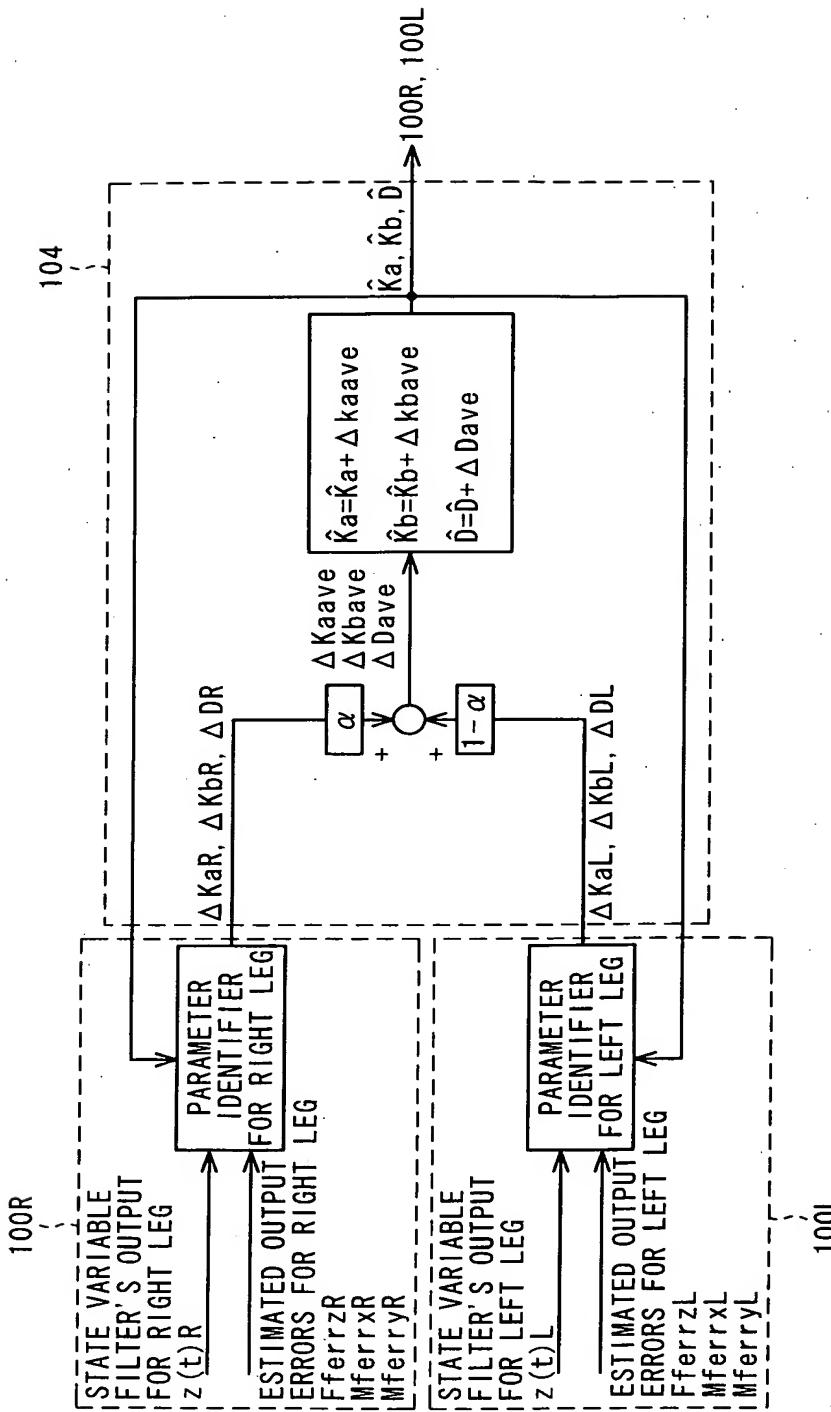


FIG. 20



10/500117

18/18